COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ADJUSTMENT OF RATES OF COLUMBIA GAS OF KENTUCKY, INC.	) CASE NO.) 10498

O R D E R

TABLE OF CONTENTS

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O R D E R

On January 30, 1989, Columbia Gas of Kentucky, Inc. ("Columbia") filed its notice with this Commission requesting authority to adjust its rates for gas service on and after March 1, 1989. The rates proposed by Columbia would produce additional annual revenues of $7,029,306, representing an increase of approximately 7.4 percent. As a basis for the requested increase, Columbia stated that it has determined the rates established by Commission Order dated October 21, 1988, in Case No. 10201[1] are no longer just and reasonable and are no longer sufficient to permit Columbia to meet its statutory responsibility to provide adequate, efficient, and reasonable service.

In order to determine the reasonableness of Columbia's requested increase, the Commission suspended the proposed rates and charges until July 31, 1989.[2]

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1 Case No. 10201, An Adjustment of Rates of Columbia Gas of Kentucky, Inc.

2 Order dated February 9, 1989.

Motions to intervene in this proceeding were filed by the Utility and Rate Intervention Division of the Office of the Attorney General and the Lexington-Fayette Urban County Government (referred to collectively as "AG/LFUCG"), Kentucky Industrial Utility Customers ("KIUC"), and GTE Products Corporation ("GTE Products"). All were granted. A public hearing was held in the Commission's offices in Frankfort, Kentucky, on June 27-30 and July 5, 1989. Simultaneous briefs were filed by July 31, 1989 and motions for leave to file reply briefs were filed by GTE Products and the AG/LFUCG. Both were granted.

This Order addresses the Commission's findings with respect to its determination of Columbia's revenue requirements and rate design, and establishes rates and charges that will produce additional annual revenues of $980,890 above normalized test-year revenues, an increase of approximately 1.03 percent.

TEST PERIOD

Columbia proposed and the Commission accepted the 12-month period ending August 31, 1988 as the test period in this proceeding.

NET INVESTMENT RATE BASE

Columbia proposed an end-of-period net investment rate base of $68,006,183. The AG/LFUCG proposed a net investment rate base of $57,138,862.[3]

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[3] Direct Testimony of Thomas C. DeWard, filed June 9, 1989, Schedule 2.

Working Capital Allowance

The major difference in the rate bases proposed by the AG/LFUCG and Columbia is the allowance for working capital. Historically, this Commission has used the formula method to determine the cash working capital allowance. Using the formula method, cash working capital is determined to be an amount equal to one-eighth of operation and maintenance expenses excluding gas purchases. Added to this amount is an additional working capital allowance for prepayments and materials and supplies.

The AG/LFUCG contends that the formula method should be replaced by the balance sheet approach wherein the working capital component of the rate base would be comprised of the current assets requiring a return less the "cost free" current liabilities.[4] They further contend that the formula method used by this Commission is inaccurate and is used as a proxy for an accurate determination of working capital.[5]

The balance sheet method has been proposed in several cases over the past few years and while this Commission does consider the balance sheet method acceptable, it has always rejected its use due to the fact that it has not been fully developed by the parties sponsoring this method. The Commission has always been aware that the formula method may not in all instances be the most precise method for determining working capital and has so stated

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4 Id. at 22.

5 Id. at 29.

on numerous occasions. The Commission has long held the opinion that a lead-lag study is also an acceptable method for determining working capital requirements. Lead-lag studies are costly and time consuming and, therefore, the Commission has not required one in each rate proceeding. In addition, in Case No. 10201 this Commission determined that the lead-lag method may not apply to Columbia because of Columbia's business structure.[6]

In the instant case, the Commission has reservations about the AG/LFUCG's calculation of working capital.[7] The Commission believes that some of the items excluded as cost free sources of capital are not truly cost free, i.e., customer deposits. Therefore, at this time, the Commission will continue to use its formula approach for working capital determination in lieu of lead-lag studies and the balance sheet method. As in the past, the balance sheet approach as used by the AG/LFUCG does not fully developed the working capital requirements of Columbia.

Accrued Construction Work in Progress ("CWIP")

The AG/LFUCG proposed to exclude $980,044 of accrued CWIP in its determination of rate base. Columbia proposed this addition to the rate base because the amount represents plant that is completed and in service but has not been booked.[8] This

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6 Order, dated October 21, 1988, page 6.

7 Id. at Schedule 4.

8 Direct Testimony of W. L. Payne, filed February 13, 1989, page 3.

adjustment is identical to the proposal in Columbia's last case, Case No. 10201. The Commission, on rehearing in that case, allowed a similar adjustment and finds no reason to reverse itself.

Prepaid Nominated Gas

In its final Order in Case No. 10201, the Commission reduced Columbia's nominated gas balances to eliminate the portion supported by cost-free accounts payable. As in Case No. 10201, Columbia argues that the accounts payable associated with nominated gas balances do not represent cost free capital.

Upon rehearing in Case No. 10201, Columbia failed to establish that prepaid nominated gas balances should not be offset by accounts payable. Columbia's arguments are comparable to its arguments on rehearing in Case No. 10201. No compelling reason to afford different treatment of the issue having been shown, the Commission has reduced Columbia's rate base by $414,458.

Post Test-Period Plant Additions

Columbia proposed post test-period net plant additions of $5,065,538 to its end-of-period rate base.[9] Construction on the various projects was to begin in November 1988 and was to be completed by the end of July 1989.[10] Columbia has proposed such an adjustment ". . . to provide Columbia a measure of relief from

9 Columbia Cost Data, filed February 13, 1989, Schedule 9, Sheet 1.

10 Direct Testimony of W. L. Payne, filed February 13, 1989, page 5.

the attrition of its earnings resulting from an unusually high accelerating level of plant investment."[11] Columbia made corresponding adjustments to its accumulated depreciation and deferred income tax accounts. This proposal would increase Columbia's revenue requirement by $888,640 based upon the return granted herein.

The Commission has historically disallowed adjustments like the one Columbia has proposed, citing its concern for the distortion or abnormalities that could occur within the earnings process. This type of adjustment taken in isolation causes the potential for earnings distortion that may be created by out-of-period mismatching. However, in Kentucky-American Water Company ("Kentucky-American"), Case No. 10481,[12] the Commission did allow a post test-period plant adjustment for plant placed in service prior to the hearing in the case. In the Kentucky-American case, the post test-period adjustments reflected plant additions which were made approximately 5 months beyond the test period.

In the instant case, Columbia's adjustment to reflect post test-period plant additions goes considerably beyond the proposal in the Kentucky-American case since some of the plant additions were not actually completed until 11 months beyond the end of the test period.

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11 Id.

12 Case No. 10481, Notice of Adjustment of the Rates of Kentucky-American Water Company Effective on February 2, 1989, final Order dated August 22, 1989.

Realizing the need to allow utilities a measure of relief from the earnings squeeze that can occur when major construction projects are undertaken, this Commission will allow that portion of plant addition that was actually completed at December 31, 1988, which is 4 months beyond the test period. By doing this, the Commission will be allowing an adjustment based on actual investment instead of estimates and will be including plant additions occurring closer to the end of the test period, consistent with the time frame allowed in the Kentucky-American case. In addition, this adjustment is consistent with other adjustments for post test-period items that the Commission has allowed in this case. By allowing 4 months beyond the test period, it is less likely that major distortion and mismatching will occur than if the Commission were to allow adjustments 11 months beyond the test period.

Based on information filed, the amount completed at December 31, 1988 was $566,265.[13] The adjustment, with corresponding adjustments to deferred taxes and depreciation, will result in an increase to rate base of $538,744.

Based upon the aforementioned adjustments, the Commission finds Columbia's appropriate net investment rate base to be $68,130,469 calculated as follows:

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13 Commission's Order dated March 27, 1989, Item 10.

Gas Plant in Service	$ 84,710,741
Accumulated Provision for Depreciation and Amortization	<36,541,135>
Net Plant in Service	$ 48,169,606
ADD:	
Construction Work in Progress	17,020,235
Cash Working Capital	2,685,557
Materials and Supplies	946,634
Prepayments	9,105,498
Subtotal	$ 77,927,530
DEDUCT:	
Retirement Work in Progress	$ <197,323>
Customer Advances for Construction	<6,126,521>
Accumulated Deferred Income Taxes	<3,337,145>
Accumulated Deferred ITC	<136,072>
Subtotal	$ <9,797,061>
TOTAL NET INVESTMENT RATE BASE	$ 68,130,469

CAPITAL STRUCTURE

Columbia proposed a capital structure of 47.17 percent long-term debt, 5.82 percent short-term debt, and 47.01 percent common equity based on the consolidated capital structure of Columbia System as of September 30, 1988, adjusted to reflect restructured short-term debt and the redemption of all preferred stock outstanding in October 1988.[14]

The AG/LFUCG recommended a capital structure of 46.51 percent long-term debt, 5.89 percent short-term debt, and 47.60 percent common equity.[15] The differences in these ratios are due to the AG/LFUCG's adjustments to long-term debt. The AG/LFUCG accepted Columbia's inclusion of the out-of-test-year 10.15 percent November 2013 bond issue, but excluded the out-of-test-year

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14 Direct Testimony of Roger D. Vari, filed February 13, 1989, Schedule 17.

15 Direct Testimony of James W. Freeman, filed June 9, 1989, page 37.

11.75 percent October 1999 issue and the 15.375 percent June 1997 issue which were to be retired in October 1988 and June 1989, respectively.[16]

We believe that the adjusted September 30, 1988 consolidated capital structure of Columbia System is an appropriate starting point in determining Columbia's capital structure. However, accepting the arguments put forth by the AG/LFUCG, the Commission is of the opinion that total capitalization should be reduced by the retirement of the October 1999 issue in October 1988 in calculating Columbia's capital structure. The Commission, however, rejects the adjustment to the capital structure for the retirement of the June 1997 bond issue. Secondly, for rate-making purposes, the capital structure for Columbia should be as follows:

	Amount	Percent
Long-Term Debt	$ 31,966,816	46.92
Short-Term Debt	3,978,819	5.84
Common Equity	32,184,834	47.24
Total	68,130,469	100.00

REVENUES AND EXPENSES

Columbia proposed an adjusted net operating income of $4,580,105[17] for this proceeding. Columbia and the AG/LFUCG have proposed numerous adjustments in this case that would affect Columbia's net operating income. After consideration of the

16 Id. at 12.

17 Columbia Cost Data filed February 13, 1989, Schedule 10, Sheet 1.

proposals, we find that Columbia's appropriate level of net operating income is $6,757,639, based upon the following:

Revenue Normalization

Columbia proposed a normalized level of sales revenues of $95,393,224, based on the rates in effect as of December 15, 1988. This amount consisted of $63,013,744 in gas cost revenues and $32,379,580 in base rate revenues.[18] The gas costs are not an issue in this case. The following discussion addresses only base rate revenues; however, total revenues, based on the rates granted in this case, will include gas cost revenues reflecting Columbia's gas cost adjustment effective September 1, 1989.[19]

In normalizing its revenues, Columbia annualized the effects of customers transferring from one rate schedule to another during the test year and increased its sales volume by 58,041 Mcf to reflect its weather normalization adjustment. The Commission has accepted Columbia's normalized revenues and sales volumes with certain modifications as explained in the following paragraphs. The effect of these modifications is to increase normalized base rate revenues by $376,753 annually, which results in normalized base rate revenues of $32,756,333.

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18 Columbia Exhibit 7, Cost Data, Schedule 8, Revenues at Rates in Effect December 15, 1988 and at Proposed Rates.

19 Case No. 10201-B, Columbia Gas of Kentucky, Inc., Semi-Annual Gas Cost Adjustment, Order dated September 1, 1989.

Customer Charge Revenues

In response to Commission data requests, Columbia discovered that it had understated its normalized revenues by $134,169.[20] This was caused by the inadvertent exclusion of prorated bills from the total number of bills included in the calculation of customer charge revenues for the GS rate schedule. At the hearing, Columbia acknowledged the understatement and stated that its normalized revenues should be increased by $134,169.[21] Accordingly, the Commission has made an adjustment to increase Columbia's normalized revenues by this amount.

Rate Changes

Columbia's base rates were changed by Order of the Commission in Case No. 89-228 dated August 23, 1989.[22] The changed rates reflect an increase over the rates of December 15, 1988, which Columbia had used in determining its normalized revenues. These increased rates have been applied to Columbia's adjusted test-year sales volumes resulting in an increase in normalized revenues of $85,084.

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20 Responses to the Commission's Orders dated March 27, 1989, Item 34(a) and dated May 3, 1989, Item 1.

21 Transcript of Evidence ("T.E."), Vol. I, June 28, 1989, pages 19-20.

22 Case No. 89-228, Investigation of the Rates of Columbia Gas of Kentucky, Inc.

Sales to Toyota

Columbia's sales to Toyota's manufacturing plant in Georgetown, Kentucky, commenced in November 1987, 2 months after the beginning of the test year. The volumes delivered to Toyota for the last 10 months of the test year are the volumes included in Columbia's calculation of its normalized revenues. Columbia requested, and the Commission granted, that the specific volumes and revenues associated with deliveries to Toyota would be considered confidential and proprietary.

The AG/LFUCG proposed an adjustment to increase normalized revenues by $253,710 based on the projected sales volumes to Toyota during calendar year 1989, stating that test-year sales were not representative of going-forward sales since there were only 10 months' sales in the test year and it was apparent that Toyota was beginning to increase its capacity.[23] Columbia argued that it is improper to project sales for only one customer when sales to any customer could change subsequent to the test period. Columbia further stated that 14 customers had switched rate schedules since the end of the test year and that those transfers should be reflected in any projection of future sales.[24]

The Commission is of the opinion that the adjustment proposed by the AG/LFUCG is inappropriate as it is based solely on

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23 Direct Testimony of Thomas C. DeWard, filed June 9, 1989, page 44.

24 Columbia Exhibit 9-A, Rebuttal Testimony of W. W. Burchett, filed July 5, 1989, page 4.

projected sales volumes, projections for which no support was offered; however, the purpose of the adjustment, to include 12 months' sales volumes that represent adjusted test-year sales levels, is consistent with the Commission's normal rate-making practices. Therefore, the Commission finds that an adjustment should be made to Columbia's sales by annualizing the 10 months throughput to Toyota during the test year for a full 12 months. In this manner, the adjustment reflects test-year sales to Toyota and no presumptions are made concerning future sales volumes. The result of such a determination is an increase of $30,928 to Columbia's normalized revenues.[25]

Transportation Revenues

Columbia proposed to include $272,771 as normalized revenues from flex rate transportation sales. This amount was derived by pricing the test-year flex rate throughput of 2,218,575 Mcf at the rates charged the various flex rate customers during December 1988, which were the most current rates available at the time Columbia's application was filed. Columbia's witness stated that it was his belief that current flex rate levels were more representative of future flex rates than a test-year flex rate average.[26] This pricing resulted in an imputed rate level of 12.3 cents per Mcf.

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25 The details of the calculation are not included herein due to the proprietary nature of the information.

26 Direct Testimony of W. W. Burchett, filed February 13, 1989, page 16.

The AG/LFUCG proposed an adjustment to increase flex rate revenues by $740,068 by pricing those sales at Columbia's fixed transportation rate.[27] In their judgment, rate flexing should be discontinued and that the fixed transportation rate should be the minimum rate for all transportation customers.[28]

The Commission has reviewed the matter of Columbia's flex rates and is of the opinion that neither the proposals of Columbia nor the AG/LFUCG realistically deal with this issue. Columbia's imputed rate level of 12.3 cents was the lowest rate level of any month during or subsequent to the test year. The use of rates from 1 month, particularly the lowest rate-month available, is inappropriate for normalizing flex rates that can fluctuate on a month-to-month basis. The AG/LFUCG's proposal includes a provision for adding a surcharge to tariff customers' rates to offset the loss of revenue from flex rate customers that switch to alternate fuels. This provision could ultimately lead to higher rates for Columbia's tariff customers than would result if some level of flex rate revenues was included in normalized revenues.

The Commission finds that Columbia's flex rate sales should be continued and that some level of flex rate revenues should be included in Columbia's normalized revenues. The Commission shares Columbia's belief that it is difficult to determine the level of

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27 Direct Testimony of Thomas C. DeWard, filed June 9, 1989, Schedule 7, as amended during direct examination, T.E., Vol. IV, July 5, 1989, page 11.

28 Id. at 45.

future flex rates but disagrees with the proposal to use rates for 1 month to impute annual flex rate revenues. The use of a longer period of time will lessen the impact of the fluctuation in Columbia's flex rates and will provide a more reasonable level of normalized flex rate revenues. Columbia's test-year flex rate revenues were $358,147 which reflects an average rate level of 16.1 cents; however, the Commission finds that Columbia's normalized revenues should be greater than the test-year levels to recognize that Columbia Gas Transmission Corporation ("TCO") began sharing rate flexing with Columbia during the test year. As Columbia stated, test-year flex revenues would have been greater if the flex sharing by TCO had been in effect for the full test year.[29]

The Commission, based on the information available, cannot restate the test year as if the flex sharing were in effect during the full 12 months. However, based on the rate levels Columbia has experienced in more recent months, which fully reflect the impact of flex rate sharing with TCO, the Commission can impute a rate level for Columbia's normalized flex rate revenues. This comports with Columbia's contention that more current rates are a better indicator of future rate levels. For the 12-month period ending March 31, 1989, Columbia's flex rate revenues were $697,490 based on throughput of 3,877,081 Mcf for a rate level of 18 cents

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29 T.E., Vol. II, June 29, 1989, page 237.

per Mcf.[30] The Commission finds that this is an appropriate rate level to calculate Columbia's normalized revenues. The resulting flex rate revenues are $399,343, which is an increase of $126,572 above the normalized level proposed by Columbia.

Salaries and Wages

Columbia proposed to increase its operating expenses by $794,653 to reflect end-of-period wage levels and wage and salary increases that will occur through December 1989, which is 15 months beyond the end of the test period.

Columbia's evidence is that the test-year labor expense has been adjusted to account for wage increases through December 1989 and that Columbia's filing seeks recognition of the post test-year labor expense because it is known and measurable.[31] In addition, Columbia argued that the Commission has made such adjustments in the past and cited the most recent Louisville Gas and Electric Company case.[32]

While it is true that the Commission has, in the past, recognized price changes that occur within a short time after the test period, the Commission has never recognized price changes so far beyond the end of the test period that distortions will occur

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30 Response to the AG/LFUCG's Data Request dated April 17, 1989, Item 1. Initial response filed May 18, 1989.

31 Direct Testimony of W. W. Burchett, filed February 13, 1989, page 5.

32 Id., referring to Case No. 10064, Adjustment of Gas and Electric Rates of Louisville Gas and Electric Company.

without making adjustments for corresponding volume changes. Columbia's proposed wage adjustment is one-sided in that it reflects the wage expense 15 months beyond the test period but does not reflect any reductions to expense, increased revenue, or productivity gains that may occur as the result of any reduction in the number of employees or a more experienced and efficient work force. Therefore, the Commission will allow Columbia's adjustment to test-period wages to reflect the wage increases which occur through December 1988 but will not include the proposed adjustment to include the wage increase for calendar year 1989 since it is too far beyond the end of the test period.

The Commission has reduced Columbia's proposed wage adjustment by $462,168. This will increase net operating income by $282,916.

<u>Inflation</u>

Columbia proposed to increase its operating and maintenance expenses by $253,598 to reflect an estimated inflation rate of 4.2 percent. The Commission has, in the past, rejected such general adjustments on the basis that they are not known and measurable. In this case, Columbia has made adjustments to specific expense accounts that were subject to known and measurable changes during the test period. The Commission has included adjustments to reflect the results of any inflationary pressures, to the extent that they can be identified, in Columbia's adjusted test-period operations. It would, therefore, be inappropriate to make an additional adjustment specifically for inflation. Moreover, any adjustment for inflation on a going-forward basis would be speculative. While there are economic indicators with which to project an inflation rate, it is difficult to accurately determine such a rate, and as Columbia's evidence reflects, it did not know what the inflation rate would be for the coming year.[33] The Commission has therefore reduced Columbia's proposed operating expenses by $253,598 to reflect the exclusion of this adjustment. This results in an increase to net operating income of $155,240.

Depreciation and Amortization Expense

Columbia proposed an adjusted test-period level of depreciation expense of $3,123,252.[34] Included in this amount is depreciation associated with CWIP. Columbia's proposed rate base included total CWIP in the amount of $17,020,235, which consisted of $15,132,547 of plant that was completed and placed in service at the end of the test period[35] and $1,887,688 of actual CWIP. Included in the actual CWIP amount is $980,044 of "unbilled" CWIP. Columbia has stated that this amount is also completed plant in service,[36] leaving $907,644 of CWIP that is representative of plant which is not in service and not subject to depreciation. Using a composite depreciation rate of 3.16 percent, the amount of depreciation expense attributable to non-depreciable CWIP is

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33 T.E., Vol. I, June 28, 1989, page 42.

34 Columbia Cost Data filed February 13, 1989, Schedule 1, Sheet 1.

35 Response to the Commission's Order dated January 17, 1989, Item 11(c), Sheet 1.

36 Direct Testimony of William L. Payne, filed February 13, 1989, page 3.

$28,682. The Commission finds that it is appropriate to use the composite depreciation rate since Columbia has provided no information concerning the specific depreciation rates for items that are under construction.

Depreciation cannot be allowed on CWIP because plant under construction is not yet in service and it is improper to expense the cost of an asset prior to the asset becoming productive. The Commission, therefore, has reduced Columbia's proposed depreciation expense by $28,682. This adjustment results in an increase of $16,333 to net operating income.

Uncollectible Accounts Expense

Columbia proposed to increase its operating expenses by $105,961 to include amortization of the write-off of the debts of Johnson County Gas Company, Inc. ("Johnson County") and Martin Gas, Inc. ("Martin"). Columbia made similar proposals in Case Nos. 10201 and 9003.[37]

The Commission believes that recovery of the Johnson County and Martin arrearages from Columbia's general ratepayers is inappropriate at this time. Very little has changed with regard to the collectibility of the arrearages since the Commission's Order in Case No. 10201.

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[37] Case No. 9003, An Adjustment of Rates of Columbia Gas of Kentucky, Inc., final Order dated October 18, 1984.

In its Order in Martin's last rate case, Case No. 10204,[38] the Commission adopted Staff's amended report which contained recommendations that "will provide sufficient revenues to allow Martin to meet its operating expenses, provide for reasonable equity growth, and allow it to begin to make payments on the Columbia judgment."[39] With regard to Johnson County, Columbia is still a party to the reorganization plan approved by the bankruptcy court to extinguish the Columbia debt. In addition, Johnson County, under reorganization, is presently making payments on this debt and, in fact, reduced the debt by approximately $50,000 during the test year.[40] It is the Commission's judgment that Columbia has not established that the Martin and Johnson County debts are uncollectible. Therefore, the Commission finds that no provision for the amortization of these arrearages should be made in this case. This action results in a reduction of $105,961 to Columbia's proposed operations and maintenance expense, thus increasing net operating income by $64,864.

Country Club Fees

The AG/LFUCG proposed the elimination of $12,900 of country club dues and other fees related to country clubs, because such

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[38] Case No. 10204, The Adjustment of the Rates of Martin Gas, Inc., for an Increase in Gas Rates, final Order dated September 16, 1988.

[39] Staff Report, Case No. 10204, Martin Gas, dated August 26, 1988, page 7.

[40] Case No. 10498, Commission Order dated March 27, 1989, Item 19.

expenses are inappropriate for rate-making purposes and the Commission has removed such expenses in the past.[41] The Commission finds that Columbia has failed to show that the past practice of this Commission should be changed. Therefore, the Commission has reduced Columbia's proposed expenses by $12,900 to reflect removal of fees associated with country clubs. This results in an increase of $7,897 to net operating income.

Advertising Expenses

During the course of this proceeding, the AG/LFUCG contested the appropriateness of some advertising costs contained in Account No. 913. The AG/LFUCG asserted that some of the costs should be removed under the provisions of 807 KAR 5:016. During the hearing on June 29, 1989, an agreement was reached between the AG/LFUCG and Columbia with the concurrence of Staff.[42] Under the terms of the agreement, advertising expense would be reduced by $137,165 to a total allowable amount of $112,227.[43]

The Commission accepts the settlement reached by the parties. This adjustment reduces Columbia's proposed level of operating expense by $137,165, thereby increasing net operating income by $83,966.

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41 Direct Testimony of Thomas C. DeWard, filed June 9, 1989, page 55.

42 T.E., Vol. II, June 29, 1989, page 85.

43 Id.

Pension Expense

Columbia proposed a level of pension expense in the amount of $742,654 in this proceeding.[44] The AG/LFUCG argued that this level is inappropriate because this figure was based upon recommendations of Columbia's actuaries and upon funding requirements instead of the level of pension expense as determined under requirements of the Financial Accounting Standards Boards, Statement of Financial Accounting Standards No. 87 ("FASB 87").[45] The AG/LFUCG has proposed a reduction of $243,301 to Columbia's proposed expense stating that Columbia's proposal is inappropriate because it did not follow the requirements prescribed by FASB 87. It is the Commission's judgment in this case that Columbia did not determine its level of pension expense based on the method prescribed under FASB 87 and that the AG/LFUCG's proposed adjustment should be accepted because the Commission does require utilities to determine the level of pension expense as prescribed by FASB 87. The Commission has reduced Columbia's pension expense by $243,301, and this adjustment results in an increase of $148,937 to net operating income.

Contributions

The AG/LFUCG proposed to disallow contributions that Columbia made to the United Way, Forward in the Fifth, and to the Chamber of Commerce. The three organizations may be classified as

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44 Columbia Cost Data dated August 31, 1988, Item 2, Sheet 6.

45 Direct Testimony of Thomas C. DeWard, filed June 9, 1989, page 51.

charitable and the Commission believes that they are worthwhile organizations. However, it has been the position of the Commission in the past to disallow charitable contributions as a rate-making item on the grounds that such contributions are not essential to the provision of services and are below the line items, the expense of which should be borne by stockholders and not the ratepayers. The Commission, therefore, finds that Columbia's operating expenses should be reduced by $3,250, resulting in an increase to net operating income of $1,989.

Amortization of Certain Costs

The AG/LFUCG proposed that certain costs incurred by Columbia during the test period should be amortized because they would benefit future periods. The items the AG/LFUCG proposes to remove are two lease payments to Bank One of Columbus in amounts of $950 and $917. Also, a software package purchased from Price Waterhouse for $4,000 and advertising displays from Porta Printer, Inc., Temple, Barker & Sloan, Inc., Robbins Company and Skyline Displays ("Porta Printer") totaling $9,858.[46] The AG/LFUCG proposed to amortize the lease payments over a 20-year period, the software package over 2 years, and the Porta Printer expenditure over 2 years.

Columbia argues that the expenditures were properly expensed during the test period and should not be amortized because the amounts are immaterial.[47]

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46 Id. Schedule 12, at 2-3.

47 Brief of Columbia, filed July 31, 1989, pages 25-26.

According to generally-accepted accounting principles ("GAAP"), any cost that will benefit future periods should be expensed over future periods; however, if it is determined that a cost is immaterial, then it should be expensed in the current period. While rate-making does not always strictly adhere to GAAP, it is the finding of the Commission that the costs at issue, totaling $15,725, are immaterial in this instance and no adjustment should be made in this case.

Savings From Elimination of Employees

The AG/LFUCG proposed a reduction to Columbia's operating expenses in the amount of $84,783 to reflect a savings resulting from the elimination of certain employee positions. Columbia argues that any savings associated with the elimination of employees is already reflected in the test period. The Commission believes the amount of savings resulting from the elimination of any employees would be subject to the timing of the employee reductions. The AG/LFUCG's estimate is not well supported, and the Commission is of the opinion that any adjustment of this nature would require a more in-depth study of overall payroll costs. The AG/LFUCG has not presented this type of analysis. The Commission, therefore, has not included this proposal in determining revenue requirements herein.

Royalty and Licensing Income

The AG/LFUCG proposed an adjustment of $2,365 to Columbia's revenues to recognize license and royalty income above the line in order to offset research and development expense. Columbia already recognizes this income above the line as an offset to distribution expense and, therefore, no adjustment should be made.[48]

Employee Expenses

The AG/LFUCG proposed a reduction of $5,922 to reflect removal of costs associated with employee recognition awards and dinners during the test year. Columbia contends that the amount is not excessive and that good employees should be rewarded. The recognition is an alternative to additional salary increases.[49]

The Commission believes that qualified and capable employees are essential to the efficient operation of any company and employees should occasionally be given recognition for their efforts and achievements. Therefore, this expenditure will be allowed for rate-making purposes.

Relocation Expenses

The AG/LFUCG proposed to amortize test-period relocation expenses over a 3-year period, resulting in a reduction to expenses of $102,812. Columbia argues that relocation expenses are incurred on an ongoing basis and the current amount is not excessive. The Commission finds no evidence to support the AG/LFUCG's contention that the relocation expenses in this case are unreasonable and will allow Columbia's proposed level.

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48 Rebuttal Testimony of William J. LaVelle, filed July 5, 1989, page 7.

49 Brief of Columbia, filed July 31, 1989, page 28.

Management Audit Expense

The AG/LFUCG proposed to reduce Columbia's operating expenses by $40,946 to reflect the amount of management audit expense allowed in Case No. 10201. In that case, the Commission established the proper level for this expense to be $67,954. In the instant case, Columbia has proposed a level of $108,900. Columbia did not challenge the AG/LFUCG on this issue, and the Commission believes that the amount allowed in Case No. 10201 is the proper amount to allow Columbia to recover in this case. The Commission has reduced Columbia's operating expenses by $40,946, an increase to net operating income of $25,065.

Improperly Deferred Expenses

The Commission agrees with the AG/LFUCG's proposal to reduce Columbia's expenses by $16,104 to correct improper deferrals. Columbia booked expenses in October 1987 that were incurred in July and August 1987. This adjustment results in an increase to net operating income of $9,858.

Excessive Allocation of Building Services to Columbia

The AG/LFUCG proposed to remove $11,678 in excessive billings for building services to Columbia during the test period from Columbia Service Corporation, through Columbia of Ohio. Columbia was unable to provide any support for the billings. The Commission, therefore, concurs with the AG/LFUCG's proposal and has reduced Columbia's operating expenses to reflect the removal of these allocated expenses. This results in an increase in Columbia's net operating income of $7,149.

Arthur Andersen and Farmer & Humble, CPA's

The AG/LFUCG proposed to remove $5,798 for charges from Arthur Andersen and $2,400 for Farmer and Humble, CPA's. The AG/LFUCG gave no definite reason for the removal of the Arthur Andersen charges, but stated that the Farmer and Humble charges were duplicative.

Columbia presented evidence that the Arthur Andersen charges were for consultation on Columbia's DIS system and the Farmer and Humble charges were for preparing Columbia's Kentucky property tax returns. The Commission believes that the charges are valid operating costs which should be included for rate-making purposes. The Commission, therefore, denies the AG/LFUCG's proposal.

Service Corporation Stationery Charges

The AG/LFUCG proposed removal of the costs incurred during the test period for a "Gas Lines" bill stuffer in the amount of $10,294. Because the AG/LFUCG stated that the expense was non-recurring, Columbia believes the AG/LFUCG was confused as to the exact nature of this expense.[50] Because the expense is for printing costs associated with the bill stuffer, the Commission believes it to be a legitimate expense and denies the AG/LFUCG's proposal.

Customer Premise Work

The AG/LFUCG proposed an adjustment of $11,233 to exclude customers premise work because it appeared excessive. Columbia

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[50] Id. at 31.

stated that the amount represented two accounts receivable for work performed for the customer and that the amounts included in the test period are not excessive. The AG/LFUCG has not made a case for removal of this expense and absent that, the Commission will allow the expenditure.

Removal of Non-Recurring Expenses

The AG/LFUCG has proposed removal of test-year charges of $8,123 that it considers to be nonrecurring, specifically, charges for plastic fusion training in the amount of $1,790 and the destruction by lightning of a Mojave RTV in the amount of $6,333.

Columbia asserts that employee training in plastic fusion is ongoing because of recertification requirements. Regarding the Mojave RTV charges, Columbia asserts that property damage is ongoing and cannot be judged based on a single item of property. The Commission concurs with Columbia concerning both issues.

Legal Fees

The AG/LFUCG proposed to disallow $25,000 of legal fees from Hazelrigg and Cox, a Frankfort law firm that provides Columbia with local counsel. The AG/LFUCG contends that since Columbia has attorneys admitted to the Kentucky Bar, the cost is unnecessary. Columbia responded that their attorney is licensed to practice law in the Commonwealth on a limited basis and, therefore, the services of local counsel are required by law. Columbia's need for local counsel is warranted. Inasmuch as there was no evidence which would allow the Commission to make a determination as to what portion of the fees were charged for representation in this case and what portion was representation in other matters, this cost is included in our determination herein.

Errors in Computing Operating Expenses

During the hearing, Columbia agreed with the AG/LFUCG that there were certain computational errors that would result in a reduction to expenses of $145,899. The Commission agrees that there were computational errors and, therefore, increases net operating income by $89,312.53.[51]

Settlement of Expenses

Columbia and the AG/LFUCG have agreed to the elimination of certain expenses such as travel, contributions, and dues and memberships.[52] This results in a reduction to operating expenses of $34,676 and an increase to net operating income of $21,227. The Commission notes that no precedent is attached to acceptance of this agreement.

Other Adjustments

Columbia refers to some $19,703 in expenses as business entertainment and submits that the costs are reasonable and appropriate.[53] The Commission has traditionally excluded such expenses for rate-making purposes and finds no compelling reason to do otherwise in this case. This results in an increase to net operating income of $11,473.

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51 T.E., Vol. I, June 28, 1989, pages 19-20.

52 Brief of Columbia, July 31, 1989, page 23.

53 Id. at 9.

Parking Fees for Ohio State Football Games

It is determined that a small portion of the parking fees paid for parking at Ohio State football games for the chairman of the board were allocated to Columbia. While the amount in question is but $2.31, Columbia is advised that its ratepayers should not have to pay for costs such as this or other forms of entertainment which are not required to furnish utility services and that such expenditures will not be allowed for rate-making purposes.

Lobbying Expenses

The AG/LFUCG argued that it is inappropriate for ratepayers to pay for activities related to lobbying.[54] Columbia contends that lobbying is a reasonable and necessary business expense involving not only state but federal programs.[55] Columbia further contends that its lobbying efforts are largely constructive in nature and that it should not be assumed that Columbia's lobbying efforts are for the purpose of gaining an advantage over its ratepayers.[56]

The Commission takes the position that lobbying expenses should not be allowed for rate-making. While the Commission does not necessarily believe that Columbia's lobbying efforts are to gain advantage over its ratepayers, it is true that Columbia's

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54 Direct Testimony of Thomas C. DeWard, filed June 9, 1989, Schedule 12.

55 Brief of Columbia, July 31, 1989, page 30.

56 *Id.* at 30.

goals will guide its legislative efforts and that these political or legislative goals may not in every instance be compatible with the goals of Columbia's ratepayers. Columbia's operating expense is reduced by $5,349, which results in an increase to Columbia's net operating income of $3,274.

Unbilled Revenues

Columbia has proposed to increase its income tax expense by $570,043 to reflect additional taxes for unbilled revenue amortization associated with the Tax Reform Act of 1986 ("TRA").

The AG/LFUCG argues that such an adjustment is inappropriate because it has no relevance for book purposes and ratepayers have never benefited from Columbia's past tax treatment of unbilled revenues.

Columbia argues that it should be allowed to recover these costs since they in fact exist, are a legitimate cost of doing business, and are "federally mandated" costs.[57]

In Case No. 10201, the Commission denied Columbia's request for this same treatment of unbilled revenues. In the final Order in Case No. 10201 the Commission found that "while the TRA rule will increase tax return income, there will be no effect on pre-tax book income or book income tax expense."[58] The Commission believes that there is no compelling reason for it to afford any different treatment in this case. This action results in an increase to net operating income of $570,043.

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57 Id. at 38.

58 Case No. 10201, final Order dated October 21, 1988, page 41.

In this case and on rehearing in Case No. 10201, Columbia suggested an alternative treatment to recover the tax payments associated with unbilled revenues. Columbia's evidence suggested the tax payments be treated as an increase to Columbia's rate base.[59] This proposal would be a valid alternative were it not for Columbia's past treatment of the taxes on unbilled revenues. Since 1982, Columbia has booked unbilled revenues and a corresponding deferred tax item. However, Columbia has reduced its deferred tax balance for the amount of taxes associated with unbilled revenues; hence, Columbia's rate base has never been reduced by the amount of those deferred taxes. To include these tax payments in the rate base at this time would be equivalent to earning a double return on those taxes. Therefore, Columbia's proposal to recover its tax payments by increasing its rate base is denied.

Reserve for Bad Debts

The TRA prescribed a rule for bad debt reserve similar to the rule concerning unbilled revenues. As a result, Columbia has proposed to recover its increased tax payments in the amount of $36,506 resulting from bad debt reserve in the same manner as the proposal for unbilled revenues. For the same reasons discussed in the section on unbilled revenues, the Commission denies Columbia's proposal to recover through rates, the additional tax payments

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59 Rebuttal Testimony of W. L. Payne, filed July 5, 1989, page 5, and Direct Testimony of J. E. Irwin, February 13, 1989, page 12.

associated with the treatment afforded the reserve for bad debt. This will result in an increase to net operating income of $36,506.

Tax Depreciation

The AG/LFUCG proposed the removal of additional income tax expense associated with tax depreciation in "excess of double-declining balance flow through."[60]

Columbia contends that the calculation involves depreciation for assets installed prior to 1971. Presently, book depreciation exceeds tax depreciation and all of the deferred tax amounts from 1954 to 1967 have been exhausted. Columbia further argues that the current ratepayers should be eligible to receive only the actual tax deduction allowed Columbia on its federal tax return.[61]

The AG/LFUCG argues that if Columbia had fully normalized, there should be no impact on the ratepayer because adequate tax reserves should remain on the books to offset any deficiency that would occur.[62]

The Commission finds that the AG/LFUCG's argument is the more persuasive and denies Columbia's proposal to include the tax expense associated with "turnaround depreciation." This adjustment increases net operating income by $155,172.

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60 Direct Testimony of Thomas C. DeWard, filed June 9, 1989, page 60.

61 Brief of Columbia, filed July 31, 1989, page 37.

62 Direct Testimony of Thomas C. DeWard, filed June 9, 1989, page 61.

Interest Synchronization

Columbia reported book interest expense of $2,579,334 in its determination of income taxes.[63] The Commission, using the same methodology applied to Columbia's rate base found appropriate herein, finds interest expense to be $3,174,864. This results in an increase to net operating income of $230,976.

Allowance for Funds Used During Construction ("AFUDC")

Columbia accrued test-year AFUDC of $72,776.[64] In keeping with past practice, the Commission has made an adjustment to AFUDC based on eligible CWIP of $907,644. This increases net operating income by $24,705.

RATE OF RETURN

Cost of Debt

Columbia proposed a cost of long-term debt of 9.13 percent and a cost of short-term debt of 8.45 percent,[65] while the AG/LFUCG proposed a cost of long-term debt of 8.70 percent and a cost of short-term debt of 8.45 percent.[66] The AG/LFUCG's calculations on long-term debt omitted the fees associated with the Limited Resource Loan Agreement ("LRLA") as well as the interest associated with the excluded bond issues. The AG/LFUCG

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63 Columbia Cost Data dated August 31, 1988, filed February 13, 1989, Schedule 6, Sheet 1.

64 *Id.* at Schedule 7, Sheet 1.

65 Direct Testimony of Roger D. Vari, filed February 13, 1989, Schedule 17.

66 Direct Testimony of James W. Freeman, filed June 9, 1989, page 37.

also adjusted the interest rate on the Revolving Credit Agreement ("RCA") from 9.44 percent to 8.68 percent to reflect costs as they would be calculated under the new agreement.[67]

The Commission is in agreement with the AG/LFUCG in its treatment of the LRLA and the RCA. Consistent with the Commission's finding in Columbia's previous rate case that the LRLA should be omitted in determining capital structure, it is also of the opinion that the LRLA should be omitted in determining the cost of long-term debt. Since the RCA is very similar in most respects to short-term debt, the Commission finds that the average interest costs of the RCA, as they would have been under the new agreement, should be used in determining long-term costs. The Commission further finds, that based on the RCA cost of 8.68 percent, the cost of long-term debt should be 8.88 percent and the cost of short-term debt should be 8.45 percent.

Return on Equity

Columbia recommended a return on equity ("ROE") of 15.5 percent and based its estimates on three approaches: the equity risk premium approach, the capital attraction approach, and the discounted cash flow ("DCF") approach. Columbia contended that the DCF method did not yield reliable estimates of ROE because of their volatility, so it recommended that the Commission rely on the risk premium method.

67 Id. at 17.

Columbia's risk premium estimate was based on a study done by Ibbotson Associates which examined the period from 1926-1986. A "risk premium" is the ROE investors require above the return currently available on corporate bonds. Over this period, the study showed the total return on common stocks averaged 5.0 percent more than the total return on long-term corporate bonds. This premium, when added to Columbia's November 1988 debenture issue which had an effective cost of 10.41 percent, results in a 15.41 percent ROE.[68]

A second method Columbia used in estimating the ROE was the capital attraction method. The capital attraction approach relates the return on common equity with the required pretax interest coverage ratio needed to ensure access to capital markets. A Standard & Poor's criterion for an "A" rating on long-term debt is a pretax interest coverage ratio of 3.0 to 4.0 times for gas distribution companies. Columbia's evidence was that in order for it to achieve a 3.2 times ratio, Columbia would have to earn an ROE of 15.5 percent.[69]

The third method Columbia used to estimate the ROE was the DCF approach, although it criticized this methodology as being unreliable in periods of volatile stock market prices. Columbia's DCF analysis resulted in a total ROE calculation of 15.33 percent

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68 Direct Testimony of Roger D. Vari, filed February 13, 1989, page 17.

69 Id. at 18.

for the Columbia system, based on an adjusted dividend yield of 6.59 percent, a projected Columbia system earnings growth rate of 8.34 percent, and an allowance for flotation costs.[70]

In its DCF analysis, the AG/LFUCG used the current dividend yields and prices as calculated by Columbia for the Moody's Gas Distribution Companies and added a growth factor based on expected dividend growth for those companies. In estimating growth for the DCF model, the AG/LFUCG argued that the model requires the use of dividend growth and not earnings growth.[71] The AG/LFUCG based its growth rates on Value Line estimates of Moody's Gas Distribution Companies, resulting in a growth rate of 4.5 percent.[72] The AG/LFUCG also included an allowance for flotation costs in its recommended ROE.

The AG/LFUCG recommended an ROE of 12.25 percent based on its DCF analysis, taking into consideration the difference in risks associated with Columbia, a distribution company, and the Columbia System as a whole. The AG/LFUCG's evidence was that the beta coefficients, which are a measure of risk for stock prices, are higher for Columbia System than for the average distribution company.[73]

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70 Direct Testimony of Roger D. Vari, filed February 13, 1989, pages 23-24.

71 Direct Testimony of James W. Freeman, filed June 9, 1989, page 31.

72 Id. at 36.

73 Id. at 26.

The AG/LFUCG also made its own estimates of ROE based upon a risk premium analysis. A major problem the AG/LFUCG found with the risk premium approach is that it is highly sensitive to the time period over which it is calculated. It demonstrated this in Exhibit 5 of Freeman's testimony which showed the risk premium ranged from -3.7 to +5.5 percent from 1958 to 1986. Based on this data, Dr. Freeman testified that a risk premium of 2.5 to 3.0 percent was very reasonable. Another criticism the AG/LFUCG had of Columbia's risk premium analysis was its use of "BBB" and "A" rated bonds. The Ibbotson study used the Salomon Brothers' High-Grade Long-Term Corporate Bond Index to determine yields and, therefore, it would have been more appropriate for Columbia to have used "AA" rated corporate bonds. The AG/LFUCG's proposed adjustments resulted in a cost of equity of approximately 12.9 percent. The AG/LFUCG adjusted this figure down to 12.0 percent, because distribution companies have less risk than a company of average risk.[74]

The Commission finds that the risk premium approach advocated by Columbia is highly sensitive to the chosen time period over which a risk premium is calculated. Thus, an investor's current risk premium becomes very difficult to estimate. Hence, the risk premium approach is not a reliable method for estimating ROE. The capital attraction approach presented by Columbia is very narrow in its scope. There are many criteria that Standard & Poor uses

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[74] Direct Testimony of James W. Freeman, filed June 9, 1989, page 28.

in determining bond ratings. In addition, there are other factors that could affect the pretax interest coverage of a firm other than an increase in ROE, such as changes in a firm's capital structure or changes in interest rates. Accordingly, the capital attraction approach as applied by Columbia should be rejected.

The Commission has traditionally used the DCF model in estimating ROE. Although one cannot rely on a strict interpretation of the DCF model, the Commission finds that the DCF approach will provide the best estimate of an investor's expected ROE. The Commission does believe that Columbia's use of earning growth instead of dividend growth results in overestimating ROE. Further, the Commission finds that gas distribution companies are less risky than Columbia System, and that the beta adjustment applied by the AG/LFUCG results in underestimating ROE.

While the Commission understands that investors may require a higher ROE in order to recover flotation costs incurred in public stock offerings, Columbia has been unable to specifically identify these costs. Therefore, the Commission finds that no allowance should be made to ROE for the recovery of flotation costs. If in future cases Columbia can identify the flotation costs, the Commission may adjust ROE to allow recovery.

The Commission, having considered all of the evidence, including current economic conditions, finds that an ROE of 12.5 to 13.5 percent is fair, just, and reasonable. An ROE in this range would allow Columbia to attract capital at a reasonable cost and maintain its financial integrity to ensure continued service and to provide for necessary expansion to meet future requirements, and also result in the lowest possible cost to ratepayers. A return of 13.0 percent will best meet the above objectives.

Rate of Return Summary

Applying rates of 8.88 percent for long-term debt, 8.45 percent for short-term debt, and 13.0 percent for common equity to the recommended capital structure approved herein produces an overall cost of capital of 10.80 percent. The Commission finds this overall cost of capital to be fair, just, and reasonable.

REVENUE REQUIREMENTS

Based on adjusted operations, the Commission has determined that Columbia is entitled to increase its rates and charges as follows:

Rate Base	$68,130,469
Return	10.80%
Required Net Operating Income	7,358,091
Adjusted Net Operating Income	6,757,639
Revenue Deficiency	$ 600,452
Retention Factor	.61215
REQUIRED INCREASE	$ 980,890

OTHER ISSUES

Cost-of-Service Studies

Columbia presented two cost-of-service studies, allocated by rate schedules, for the 12-month period ending August 31, 1988. The two studies are identical except in the manner in which distribution main costs are classified and allocated. The Demand/Commodity study classifies and allocates distribution main costs based upon 50 percent demand and 50 percent commodity (volume of gas used), whereas, the Demand/Customer study classifies and allocates distribution mains in part upon demand and in part upon the number of customers in each class. The customer-related portion of the Demand/Customer study was determined using the "minimum system" methodology.

Columbia stated that both studies are relevant because they provide the outside limits of the possible allocations of mains to the various classes of service.[75] Columbia explained that the Demand/Commodity study produces results that are generally more favorable to the residential class, while the Demand/Customer study produces results that are generally more favorable to the industrial class.[76] For this reason, Columbia applied approximately equal weighting to the results of each study in order to support the rate design of its proposed rate schedules.[77]

Columbia's cost-of-service analysis indicates that at current rates, GS-Commercial, GS-Industrial, FI, IS, and DS customers are, individually, making a larger contribution to system costs than the company as a whole, whereas, the contributions to system costs of GS-Residential and IUS customers are less than the overall company rate of return. Specifically, Columbia's analysis indicates the following rates of return: overall company, 6.25 percent; GS-Residential, 0.02 percent; GS-Commercial, 25.31

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75 Direct Testimony of W. L. Payne, filed February 13, 1989, page 11.

76 Id.

77 Direct Testimony of W. W. Burchett, filed February 13, 1989, page 14.

percent; GS-Industrial, 19.33 percent; FI, 6.87 percent; IS, 8.48 percent; IUS, -2.28 percent; and DS, 22.33 percent.[78]

GTE Products has stated that Columbia's cost-of-service studies are appropriate and support its rate design proposals.[79] Specifically, GTE Products contends that Columbia has used the results of its cost-of-service studies judiciously in proposing to move toward greater equality in rates of return among the functional classes of customers of the GS tariff schedule.[80] KIUC has encouraged the Commission to approve Columbia's Demand/Customer study which, according to KIUC, reflects class cost incurrence principles.[81] However, KIUC contends that Columbia's Demand/Commodity study is deficient because it allocates 50 percent of distribution main investment on annual commodity volumes and it fails to classify a portion of distribution mains as being customer related[82]. The AG/LFUCG was critical of cost-of-service studies in general, stating, "cost-of-service studies can be done in any number of ways and can be engineered to show any kind of a result."[83]

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78 T.E., Vol. I, pages 18-19.

79 GTE Products Brief, page 10.

80 Id. at 3.

81 Direct Testimony of Kenneth K. Eisdorfer, filed June 9, 1989, page 9.

82 Id. at 10.

83 AG/LFUCG Brief, page 3.

The Commission, in its October 21, 1988 Order in Case No. 10201, explicitly encouraged Columbia to use multiple methodologies in conducting cost-of-service studies in order to obtain a range of results useful as a starting point in rate design. The Commission acknowledges Columbia's efforts in preparing multiple cost-of-service methodologies in this case; however, the Commission continues to believe that an appropriate cost-of-service analysis should include a study in which the "zero-intercept" methodology has been used to allocate distribution main costs. In its August 23, 1989 Order on Rehearing in Case No. 10201, the Commission required Columbia, in all subsequent rate cases, to submit, among others, a cost-of-service study in which the "zero-intercept" methodology has been used.

However, the Commission believes that Columbia's cost-of-service analysis, in which equal weighting is given to the two cost-of-service studies, although not ideal, provides a reasonable estimate of class rates of return. Therefore, the Commission finds that Columbia's cost-of-service analysis forms an acceptable basis for the rate design allowed herein.

Revenue Increase Allocation

Columbia allocated its proposed increase to all tariff sales rate schedules with equal increases of approximately 23 percent and also proposed increases of 4 and 53 percent, respectively, to its GS Firm Transportation Rate and GS Interruptible Transportation Rate. Columbia allocated none of its requested increase to FI and IS transportation customers, contending that such increases would reduce its ability to effectively compete with other energy suppliers, would result in loss of load, and would result in increased requirements for rate flexing to maintain throughput.[84]

The AG/LFUCG proposed that all rate classes be allocated some portion of the allowed increase and that FI and IS transportation customers receive a larger allocation than Columbia's tariff schedule customers. The AG/LFUCG stated that industrial transportation customers impose increased risks on Columbia as non-captive customers who have the option of leaving the Columbia system to obtain lower prices.[85] The AG/LFUCG argued that the increased risk of losing this load, while not quantifiable, was obvious and could not be ignored in the rate-setting process.[86]

GTE Products maintained that any additional risks incurred by Columbia as a result of providing transportation service to industrial customers were minimal and that Columbia was already being compensated for that risk by the rate of return the transportation class was providing.[87] GTE Products' evidence was based on research in the electric industry which reflected that little justification exists for significant differences in class rates of return; further, that because of similarities between the

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84 Direct Testimony of Kimra Cole, filed February 13, 1989, page 3.

85 Rate Structure Testimony of James W. Freeman, Ph.D., filed June 9, 1989, pages 17-18.

86 Id. at 18-19.

87 Direct Testimony of Charles D. Buechel, filed June 26, 1989, pages 9-11.

gas and electric industries, the results of this research were applicable to the gas industry.[88]

The Commission finds that the increase granted herein should be allocated to all customer classes; however, increases will not be uniform for all rate classes. The IUS class is producing the lowest rate of return of any rate class and will continue to do so even with the full increase proposed by Columbia. This lower return should not be worsened by reducing the proposed rate; therefore, the full increase, to 14.11 cents per Mcf, should be granted.

The proposed 53 percent increase to the GS Interruptible Transportation Rate is the second step of a three-step increase originally approved in Case No. 10201. In order to move toward the goal of bringing the interruptible rate to the level of the GS Firm Transportation Rate and eventually recover the approximate markup over gas cost that would be realized by tariff sales, the full increase will be granted. In addition, the GS Firm Transportation Rate has been increased to remain equal to the GS tail block tariff rate.

The GS, FI, and IS rate schedules shall all receive increases that approximate the overall increase in base rate revenues. This allocation reflects the combined results of Columbia's cost-of-service studies which show all three rate schedules are producing less than the overall rate of return allowed herein.

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88 Id.

The Commission has given serious consideration to the question of whether FI and IS transportation customers should be allocated some portion of the increase granted herein. Columbia maintains that no increase should be imposed on these customers due to competitive considerations, i.e., gas-to-gas competition, competition from alternate fuels, and potential by-pass by interstate pipelines. Columbia also contends that increasing these rates will increase the need for rate flexing.[89] However, Columbia still intends to have transportation rates approximate the tariff rate markup over gas costs when competitive conditions allow.[90]

The Commission is not persuaded by Columbia's arguments against increasing transportation rates. Columbia presented no evidence to demonstrate that competitive conditions are different now than 18 months ago when, in Case No. 10201, Columbia proposed to increase FI and IS transportation rates by more than it proposed to increase FI and IS tariff rates. Columbia cited the increased number of customers and increased volumes in the flex program since the test year as evidence of its competitive situation.[91] Columbia did not, however, show that this increased rate flexing was caused by any increase in its fixed transportation rate. In fact, the monthly flex rate reports Columbia files with

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89 Direct Testimony of Kimra Cole, filed February 13, 1989, pages 3-4.

90 Response to the Commission's Order dated March 27, 1989, Item 65.

91 Response to the Commission's Order dated May 3, 1989, Item 9.

the Commission show that customers added since the test year have widely fluctuating flex rates which occasionally exceed the fixed rate. Further, increases in volumes delivered to existing flex rate customers have no bearing on fixed rates and merely represent increased revenues for Columbia.

The Commission agrees with Columbia's position that transportation rates should approximate tariff rates and will not, therefore hold transportation rates at the current level. If an increase in fixed rates results in more flexing, the flex rate will be serving its purpose. If increased rate flexing causes revenue losses, that situation can be addressed in future cases.

The AG/LFUCG proposed that the fixed transportation rate be increased to 60 cents per Mcf, an increase of approximately 40 percent. It argued that FI and IS transportation customers, with the ability to purchase gas directly and/or use alternative fuels, have caused Columbia's industrial sales to increase in variability and have imposed increased costs and risks on Columbia. The AG/LFUCG's evidence was that transportation rates should be set to reflect the value that non-captive customers receive through their ability to leave and enter the Columbia system as economic conditions dictate.

The Commission finds little merit in the AG/LFUCG's arguments concerning costs that resulted from contract buy-outs, reformation, etc. These issues, and the Commission's treatment of these "take-or-pay" costs were addressed in Case No. 9554-C.[92] The Commission does find merit to the AG/LFUCG's argument that the non-captive status of these customers results in an increased level of uncertainty and an increased level of risk for Columbia. Transportation volumes comprise over 25 percent of Columbia's total throughput and the loss of these volumes, or some portion of these volumes, is always possible. This potential loss of sales causes the transportation class to present a greater risk to Columbia than other customer classes. However, the Commission finds that such risks can be given recognition in setting rates without the use of an arbitrarily selected rate.

The AG/LFUCG's evidence presents a new aspect to rate regulation - one that the Commission believes has limited practical use. Customers served under any Columbia rate schedule are permitted to take transportation volumes or, if a customer has the desire and ability, to switch to an alternative fuel. As such, any calculated option value could be applied to all rates, not just FI and IS transportation rates. Furthermore, the value of such an option is significantly affected by the assumptions, i.e., inputs used in the analysis. The AG/LFUCG introduced evidence in an attempt to correct the inputs by restating the carriage charge at 45.75 cents per Mcf; however, it did not restate the tariff cost of gas to reflect Columbia's existing commodity rate.[93] Such

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92 Case No. 9554-C, Columbia Gas of Kentucky, Inc., Semi-Annual Gas Cost Adjustment, Order dated November 14, 1988.

93 Revised Testimony of Jeffrey A. Born, Ph.D., filed July 6, 1989, Table 1 and Table 2.

restatement would increase the exercise price to nearly $4 per Mcf rather than $3.05, and would result in calculated option values so small as to have no significant effect on rates.

The Commission is not persuaded by GTE Products' arguments regarding risk differentials and class rates of return. The research cited as the basis for its opinions was directed specifically toward the electric industry, was performed 6 to 9 years ago, and was based on non-competitive conditions unlike the circumstances that now exist in the area of gas transportation. The non-captive status of transportation customers causes them to present a greater risk than other customer classes, resulting in a higher rate of return.

The Commission finds that, under current operating conditions and absent a demonstration that its rates are not competitive, Columbia's transportation rates should equal or approximate its tariff rate markup over gas costs. This is Columbia's stated objective, as first presented in Case No. 10201 and as repeated in this record. From a policy perspective, this rate structure would ensure that Columbia would have relatively stable earnings regardless of whether Columbia sells or transports gas. Therefore, the Commission finds that Columbia's FI and IS transportation customers should be allocated a portion of the increase granted herein; however, based on the higher rates of return currently earned from these sales, the increase granted will be only one-half the overall base rate increase of 3.0 percent.

Rate Design

Columbia proposed to increase the differential between the rate blocks in its GS rate schedule from 3 cents to 15 cents per Mcf. This was based on the results of Columbia's cost-of-service studies which showed the GS residential class was providing a return significantly less than Columbia's overall rate of return while the GS commercial and industrial classes were contributing returns substantially greater than the overall rate of return. Increasing the differential, as proposed by Columbia, would have the effect of placing a larger share of the increase on the residential class and thereby increase the rate of return generated from residential sales. Columbia also proposed to increase the GS residential customer charge by approximately 31 percent, the GS commercial and industrial customer charge by approximately 38 percent, and FI and IS customer charges by 19 percent.

The AG/LFUCG stated that the proposed increases for the residential class were too drastic and violated the Commission's goals of rate stability, gradualism, and continuity.[94] The AG/LFUCG also argued that any increase in the residential customer charge should be approximately equal to the overall percentage increase in base rate revenues ultimately granted by the Commission.[95]

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94 Brief of the AG/LFUCG, filed July 31, 1989, page 2.

95 Id.

The Commission finds that Columbia's intent for increasing the differential between rate blocks in the GS rate schedule is reasonable; however, based on the additional revenue granted herein and in keeping with the Commission's often stated goals of rate continuity and gradualism, the differential will be increased to only 4 cents per Mcf rather than 15 cents as requested by Columbia.

Likewise, the Commission has rolled back Columbia's proposed customer charges to levels that, based on the overall 3.0 percent increase in base rate revenues granted herein, reflect a degree of gradualism and rate continuity.

Gas Cost Allocation and Recovery

Columbia proposed to revise its gas cost adjustment to remove supplier demand charges from the average cost of gas for customers served under the FI and IS rate schedules. Columbia also proposed to implement demand charges which track the D-1 and D-2 demand charges Columbia is billed by TCO. The effect of these changes, which would shift nearly $1 million in gas costs from FI and IS customers to GS customers, would be to reduce rates for FI and IS industrial customers by more than 80 cents per Mcf while increasing rates approximately 4 cents per Mcf for GS customers.

The AG/LFUCG's evidence was that such changes and the resulting reduction in rates for industrial customers were inappropriate unless industrial transportation rates were increased, as it had recommended, by an amount that approximately offset the gas cost reductions.[96]

The Commission finds that Columbia's proposed change in its gas cost adjustment is unnecessary at this time and, therefore, should be denied. Columbia has indicated that the resultant rate reduction is not intended as a means of retaining or gaining industrial tariff sales. As such, the change would not generate additional revenues but would merely shift gas cost recovery between rate classes. The Commission sees no need for such a shift at this time.

The Commission realizes that different customer classes impose different levels of cost on Columbia. These differences are recognized in the different base rates charged Columbia's customers. The Commission finds, however, that in the area of gas costs, the public interest is best served through a gas cost adjustment by which all customers are charged an equal, weighted-average cost of gas. The change proposed by Columbia, however, would serve only the interests of the few FI and IS tariff sales customers Columbia presently serves.

The Commission is aware of no requirement that a retail company's rates track its wholesale supplier's rates. Absent any such requirement and mindful of the major rate changes TCO would experience under the "global settlement" presently pending at Federal Energy Regulatory Commission ("FERC"), the Commission

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96 T.E., Vol. IV, July 5, 1989, pages 65-66.

finds no present need to implement Columbia's proposed D-1 and D-2 demand charges. Moreover, Columbia indicated that it would not desire this change in demand charges unless its gas cost adjustment was also changed.[97] For these reasons, the proposed changes in demand charges are denied.

Tariff Changes

In addition to its rate changes, Columbia proposed several changes in the text of its tariffs and introduced new tariffs headed Customer Owned Volume Transfers and Cost Avoidance Service. Many of the changes related to the proposed change in Columbia's gas cost adjustment and the proposed D-1 and D-2 demand charges. As these changes have been denied, all related tariff changes are also denied, including those sections on seasonal nominations and seasonal excess takes.

All other changes not specifically addressed herein are approved as proposed by Columbia and are included in the Appendix to this Order. The proposed Customer Owned Volume Transfer and Cost Avoidance Service tariffs are addressed in the following paragraphs.

From the evidence presented, it appears there would be little tangible benefit accruing to Columbia from approval of the Transfer of Customer Owned Volumes Tariff, and that the potential exists for such transfers to be detrimental to the gas costs of

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97 T.E., Vol. I, June 25, 1989, page 57.

Columbia's tariff customers.[98] Absent a demonstrated need for such transfers or tangible benefit to be derived therefrom, the Commission is of the opinion that any such transfers should continue to be handled by marketers as described by Ms. Cole, witness for Columbia.[99] Therefore, this proposed tariff is denied.

The Cost Avoidance Service tariff proposed by Columbia is, in the Commission's opinion, premature. Various proceedings, including the TCO settlement, which are presently pending at FERC may significantly impact the nature and magnitude of gas inventory charges, the cost of which Columbia is attempting to avoid. Under these circumstances, and in view of the treatment the Commission has afforded Columbia regarding take-or-pay charges, there appears little need for such a tariff at this time. Furthermore, the Commission is reluctant to authorize a competitive, i.e. flex rate, for sales of tariff gas. For these reasons, the proposed tariff is denied.

Flex Rate Issues

As part of its flex rate proposal, Columbia requested that it be allowed to retain 20 percent of all revenues collected above its proposed rate level and that it be required to absorb 20 percent of the difference for revenues collected below its proposed rate level.[100] The AG/LFUCG opposed this plan,

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[98] Response to the Commission's Order dated March 27, 1989, Item 67(c).

[99] T.E., Vol. I, June 28, 1989, page 234.

[100] Direct Testimony of W. W. Burchett, filed February 13, 1989, pages 16-17.

maintaining that the proposed rate level was understated and that the proposal did not specifically address undercharging for transportation.[101]

As part of its rate structuring proposal, the AG/LFUCG recommended that the Commission establish a minimum flex rate of 35 cents per Mcf to test the waters as to how high rates would need to go to cause a shift to alternate fuels.[102] KIUC has stated that the imposition of a minimum flex rate at 35 cents will cause Columbia's largest flex rate customer, Ashland Petroleum Company ("Ashland"), to cease transporting gas on the Columbia system.[103]

The Commission, as stated in the discussion on revenue normalization, finds that flex rate sales should be continued. The Commission is not an advocate of flex rate sales, but it recognizes the economic realities facing the gas distribution industry and acknowledges that some loads may be at risk if rates are not flexed. When rates are flexed, some revenue is lost compared to the fixed transportation rate, but more revenue is generated than if the load were lost to alternate fuels. Maximizing this revenue contribution is of primary importance to the Commission and is the reason given by Columbia for its proposal to retain or absorb a portion of its flex revenues.

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101 Brief of the AG/LFUCG, filed July 31, 1989, pages 12-17.

102 Rate Structure Testimony of James W. Freeman, Ph.D., filed June 9, 1989, page 53.

103 Brief of KIUC, filed August 1, 1989, page 23.

The Commission agrees with the AG/LFUCG that the proposed rate level of 12.3 cents is too low and, as previously stated, flex rate revenues have been normalized at an 18 cent rate level. The Commission is also of the opinion that 20 percent as the portion of the flex revenue difference that Columbia would either retain or absorb is too low to provide an incentive to effectively manage flex rates.

The Commission disagrees with the AG/LFUCG's proposal to impose a minimum flex rate of 35 cents per Mcf. If, as the AG/LFUCG argues, some flex customers remained on the system at this rate, the revenue from those customers would be greater. However, the lost revenue from Ashland, and possibly other flex customers, would have to be recovered from other sales and no evidence was provided that the revenues generated by the minimum 35 cent rate would offset the loss.

The AG/LFUCG states that residential ratepayers are willing to assume the risk that industrial customers may leave the Columbia system.[104] The AG/LFUCG also states that this Commission is required to protect Columbia's captive customers.[105] The Commission's primary responsibility is to balance the interest of ratepayers and shareholders and that responsibility would not be met by adopting a proposal that results in lower revenues for Columbia and/or higher rates for the remaining customers.

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[104] Brief of the AG/LFUCG, filed July 31, 1989, page 11.

[105] Id. at 4.

The Commission is of the opinion that some incentive should be introduced to better ensure that revenues from transportation are being maximized. The Commission is further of the opinion that the revenues and rate levels allowed herein for FI and IS transportation should form the basis for such an incentive. Transportation for GS customers will be excluded from this discussion due to the substantially higher GS fixed rate and the minimal amount of flexing by GS customers. The increased fixed transportation rate for FI and IS customers allowed herein is 43.75 cents per Mcf and the normalized rate level for flex rates is 18.0 cents per Mcf. Applying these rate levels to the adjusted test year FI and IS transportation volumes results in revenues of $2.4 million and an average rate level for transportation of 35.4 cents per Mcf. This average rate level will be considered a target rate for Columbia in the administration of its FI and IS transportation program. By using a target rate for all FI and IS transportation volumes, Columbia's flexibility is greater than if a target rate was applied solely to flex rate sales; however, it places increased emphasis on the total revenues Columbia generates from transportation.

The total FI and IS transportation revenues of $2.4 million included herein represents approximately 7.1 percent of Columbia's total base rate revenues, while FI and IS transportation volumes account for approximately one-fourth of Columbia's total throughput. These same ratios were present in the revenues and volumes included in Case No. 10201. Absent any economic downturns, which would reduce transportation volumes, or unexpected growth in GS tariff sales, the Commission expects these ratios to change little in the near future except possibly to increase, as has occurred since the test year. Under such conditions, Columbia should have ample opportunity to generate sufficient FI and IS transportation revenues to maintain the 7.1 percent ratio and achieve a target rate of 35.4 cents.

Unless Columbia experiences a significant decrease in FI and IS transportation volumes relative to total throughput, the Commission intends the target rate and revenue ratio established herein to be the basis for determining the minimum level of normalized transportation revenues included in Columbia's next rate case.

SUMMARY

The Commission, after consideration of all matters of record, the evidence and being otherwise sufficiently advised, is of the opinion and finds that:

1. The rates in the Appendix, attached hereto and incorporated herein, are the fair, just, and reasonable rates for Columbia to charge its customers for service rendered on and after the date of this Order.

2. The rates proposed by Columbia would produce revenue in excess of that found reasonable herein and should be denied.

3. The rate of return granted herein is fair, just, and reasonable and will provide for the financial obligations of Columbia with a reasonable amount remaining for equity growth.

4. The tariff changes set forth in the Appendix should be approved. All other tariff changes proposed by Columbia that are not included in the Appendix should be denied.

IT IS THEREFORE ORDERED that:

1. The rates in the Appendix be and they hereby are approved for services rendered by Columbia on and after the date of this Order.

2. The rates proposed by Columbia are hereby denied.

3. The tariffs specifically set forth in the Appendix are approved; all other proposed tariffs are denied.

4. Within 30 days from the date of this Order, Columbia shall file with the Commission revised tariff sheets setting out the rates and tariff provisions approved herein.

Done at Frankfort, Kentucky, this 6th day of October, 1989.

PUBLIC SERVICE COMMISSION

Chairman

Vice Chairman

Commissioner

ATTEST:

Executive Director

APPENDIX

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 10498 DATED 10/06/89

The following rates and charges are prescribed for the customers served by Columbia Gas of Kentucky, Inc. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of this Commission prior to the date of this Order.

CURRENTLY EFFECTIVE BILLING RATES

	Base Rate Charge $	Gas Cost Adjustment $	Total Billing Rate $
RATE SCHEDULE GS			
Customer Charge:			
Residential	4.40		4.40
Commercial or Industrial	11.00		11.00
Volumetric:			
First 2 Mcf/Month	1.4106	3.6365	5.0471
Next 48 Mcf/Month	1.3706	3.6365	5.0071
Next 150 Mcf/Month	1.3306	3.6365	4.9671
All Over 200 Mcf/Month	1.2906	3.6365	4.9271
Delivery Service:			
Firm	1.2906	.0473	1.3379
Interruptible	.9919	.0473	1.0392
RATE SCHEDULE FI			
Customer Charge:	110.00		110.00
Customer Demand Charge: Demand Charge Times Firm Mcf Volume in Customer Service Agreement		5.6990	5.6990
Commodity Charge:	0.4409	3.6365	4.0774
Delivery Service: Interruptible	0.4375	.0473	.4848

RATE SCHEDULE IS

Customer Charge:	110.00		110.00
Commodity Charge	0.4409	3.6365	4.0774
Delivery Service: Interruptible	0.4375	.0473	0.4848

RATE SCHEDULE IUS

For all Volumes Delivered each Month	0.1411	3.6365	3.7776
Delivery Service	0.1411	0.8021	0.9432

<u>RATE SCHEDULE FI - FIRM AND INTERRUPTIBLE SERVICE</u>

<u>Minimum Monthly Charge</u>

The minimum monthly charge each billing month for gas delivered or the right of the buyer to receive same shall be the sum of the customer charge plus the customer demand charges.

In the event of monthly, seasonal or annual curtailment due to gas supply shortage, the demand charge shall be waived when the volume made available is less than 110 percent of the daily firm volume times thirty (30). In no event will the minimum monthly charge be less than the customer charge.

If the delivery of firm volumes of gas by seller is reduced due to peak-day interruption in the delivery of gas by seller or complete or partial suspension of operations by the buyer resulting from force majeure, the minimum monthly charge shall be reduced in direct proportion to the ratio which the number of days of curtailed service and complete or partial suspension of buyer's operation bears to the total number of days in the billing month. Provided, however, that in cases of buyer's force majeure, the minimum monthly charge shall not be reduced to less than the customer charge.

<u>SEMI-ANNUAL GAS COST ADJUSTMENT CLAUSE</u>

<u>Determination of GCR</u>

The Company shall file a semi-annual report with the Commission which shall contain an updated gas cost recovery (GCR) rate and shall be filed at least thirty (30) days prior to the beginning of each semi-annual calendar period. The GCR shall become effective for billing with the final meter readings of the first billing cycle of each semi-annual calendar period.

Definitions

(d) "Reporting period" means the six-month accounting period that ended approximately thirty (30) days prior to the filing date of the updated gas recovery rates, i.e. the six months ended June 30th and December 31st each year.